

KOROMPAY, Ede, tanar (Budapest)

A visit to the Alkali Experimental Farm. Term tud kozl
7 no.4:170-172 Ap '63.

86385
S/020/60/135/002/005/036
C111/C222

16.4100

AUTHORS: Remez, Ye.R., Koromyslichenko, V.D.

TITLE: Vl. Markov's Problem for Polynomials of a System of Chebyshev's Functions and the Concept of a Regular T-System

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 2,
pp. 266 - 269

TEXT: Extending the classical question of V.A. Markov (Ref. 1) who asked for rational polynomials deviating least from zero in the sense of Chebyshev on a given interval, S.N. Bernshteyn (Ref. 5) introduced the T - systems $\{\varphi_\nu(x)\}_0^n$ of functions continuous on $[a, b]$ having the property that every polynomial $F(x) = \sum A_\nu \varphi_\nu(x)$ ($\sum |A_\nu| > 0$) has not more than n zeros on $[a, b]$. In order to generalize the classical results (Ref. 1) the authors introduce the following specialization of the notion: $(a \leq x \leq b)$
Definition 1: The T - system $\{\varphi_\nu(x)\}_0^n$ is called regular if every polynomial $F(x) \neq \text{const}$ generated from it has not more than $n + 1$ maximal deviation points on $[a, b]$.

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Vl. Markov's Problem for Polynomials of a System S/020/60/135/002/005/036
of Chebyshev's Functions and the Concept of a C111/C222
Regular T-System

Definition 2 : If a regular T-system is a TM - system (i.e. that every partial system $\{\varphi_\nu(x)\}_0^k$ is a T-system too, cf (Ref. 7)), then it is called a regular TM-system.

For the justification of the definitions the authors prove the existence of non-regular T-systems. X

Two sufficient marks for the regularity are given :

I. The regularity of the T-system $\{\varphi_\nu(x)\}_0^n$ ($a \leq x \leq b$) is guaranteed in all cases where among its polynomials $F(x)$ there is a $F^*(x) = \sum A_\nu^*(x) \varphi_\nu(x) = 1$.

II. The regularity is guaranteed for a T-system $\{\varphi_\nu(x)\}_0^n$ ($a \leq x \leq b$) with ζ ($\zeta = 1, 2$ or 0) fixed zeros if the polynomials $F(x)$ ($\neq \text{const}$) have a derivative $F'(x)$ in (a, b) which vanishes at most in $n - 1 + \zeta$ points.

The authors give 10 examples of TM-systems with fixed zeros being regular

according to the mark II, e.g. 8) $\left\{ e^{-\frac{x}{2}} x^\nu \right\}_{\nu=0}^n$ on $[0, \infty]$.

Definition 3 : A system regular on $[a, b]$ is called regular in a strengthened Card 2/3

Vl. Markov's Problem for Polynomials of a
System of Chebyshev's Functions and the Concept
of a Regular T-System

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sense if it satisfies the conditions of mark II with respect to $F'(x)$.

E.g. the system $\varphi_0(x) = \frac{1}{1+x}$, $\varphi_1(x) = x$ ($0 \leq x \leq 1$) is regular, but not
regular in the strengthened sense.

Generalizing the classical results it holds ;

Writing for a regular T-system $\{\varphi_\nu(x)\}_0^n$ the generalization of the problem
of V.A. Markov in the terms of the general Chebyshev approximation process
(Ref. 7) for a (continuous infinite) system of incompatible equations with n
free parameters - unknowns, then the mentioned incompatible system of
equations will always have a single Chebyshev subsystem (irreducible) if the
existence of at least one non - degenerated Chebyshev solution ($F^0(x) \neq \text{const}$)
is assumed. - There are 9 Soviet references.

ASSOCIATION: Institut matematiki Akademii nauk USSR (Mathematical Institute
of the Academy of Sciences Ukr. SSR)
PRESENTED: June 6, 1960, by N.N. Bogolyubov, Academician
SUBMITTED: May 19, 1960

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16.3000

AUTHORS: Remez, Ye.Ya., and Koromyslichenko, V.D.

TITLE: Regular T-Systems and Some Problems in the Theory of V.A.Markov's Generalized Polynomials

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol.135, No.4, pp.787-790

TEXT: The authors consider everywhere regular Chebyshev-Markov systems (TM-systems), i.e. systems being so that the polynomials of the system $F(x) = \sum A_\nu \varphi_\nu(x) \neq \text{const}$ on $[a, b]$ have at most $n+1$ points of maximal deviation (cf. (Ref.1,2,3)). Most of the results, however, can be extended to general regular T-systems.

At first the classical Markov problem is generalized: For the generalized polynomial $F(x) = \sum A_\nu \varphi_\nu(x)$ the problem

$$(1) \quad \max_{a \leq x \leq b} |F(x)| = L[F] = L(A_0, \dots, A_n) = \min (-g)$$

has always a unique or infinitely ambiguous solutions under the condition

$$(2) \quad \omega[F] = A_0 \alpha_0 + A_1 \alpha_1 + \dots + A_n \alpha_n = 1 \quad (\sum |\alpha_\nu| > 0).$$

In order that the ("non-degenerated") polynomial $\tilde{F}(x) = \sum \tilde{A}_\nu \varphi_\nu(x) \neq \text{const}$

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satisfying (2) and having the points of deviation x_0, \dots, x_{k-1} ($1 \leq k \leq n+1$), is a solution of (1) it is necessary and sufficient that identically in A_0, \dots, A_n the relation

$$(3) \quad \omega[F] \equiv \sum_{s=0}^{k-1} r_s F(x_s)$$

and the additional relation

$$(4) \quad r_s \tilde{F}(x_s) \geq 0 \quad (s=0, \dots, k-1)$$

are satisfied.

Conditions for the uniqueness of the solution of (1)-(2) in the case of T*-systems (cf. (Ref.2)) are discussed.

It is stated that an arbitrary given polynomial $F(x) = \sum A_\nu \varphi_\nu(x)$ ($\nu=0, \dots, n$; $a \leq x \leq b$) is a solution of (1)-(2) for a suitably chosen $\alpha = \alpha_0, \dots, \alpha_n$. Here it can be reached that the Chebychev points of deviation form an arbitrarily prescribed non-empty subset $(s=s_i, i=1, \dots, q)$

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of the set $\{x_s\}_{s=0}^{k-1}$ of the points of deviation of the given $F(x)$.

The authors point to the connection with the correlative problem of generalized moments. This problem consists in the determination of a function of bounded variation $G(x)$ satisfying the conditions

$$(9) \quad \int_a^b \varphi_\nu(x) dG(x) = \alpha_\nu, \quad (\nu=0, \dots, n) \quad V_a^b(G) = \min.$$

Main result referring to this: If the problem (1)-(2) has at least one non-degenerated solution $(F^{(0)}(x) \equiv \text{const})$ then the single solution of (9) is a step function $G(x)$ with q jumps r_0, \dots, r_{q-1} in the Chebyshev points of deviation x_0, \dots, x_{q-1} of (1)-(2), where

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$$(10) \quad v_a^b(\kappa) = \int_a^b |d\zeta| = \sum_0^{q-1} |r_s| = \frac{1}{g}.$$

The authors mention Ya.A.Shokhat and Vl.Markov. There are 12 references:
11 Soviet and 1 English.

[Abstracter's note: The understanding of the paper is very difficult
since, without any hints or explanations, the authors use several
notations of earlier papers (Ref.4,5) and of the book of Ye.Ya.Remez,
General Numerical Methods of Chebyshev Approximations, 1957 (Ref.2) which
is not available to the abstracter]

ASSOCIATION: Institut matematiki Akademii nauk USSR (Mathematical
Institute of the Academy of Sciences Ukrainskaya SSR)

PRESENTED: June 6, 1960, by N.N.Bogolyubov, Academician

SUBMITTED: June 6, 1960

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S/041/61/013/003/003/010
B112/B125

16.6500

AUTHOR: Koromyslichenko, V. D.

TITLE: Some generalizations of the problem by V. A. Markov and his principal theorem which corresponds to the criterium by P. L. Chebyshev - A. A. Markov. I.

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, v. 13, no. 3, 1961, 59-74

TEXT: In analogy to the fundamental theorem of Chebyshev-Markov the author constructs a generalized polynomial

$F(a^*, x) = \sum_{j=0}^n a_j^* \psi_j(x)$ which optimally approximates a given continuous function $f(x)$ according to Chebyshev, i.e., which satisfies the conditions:

$$\max_{x \in G} |F(a^*, x) - f(x)| = \max_{j=0}^n |a_j^* \psi_j(x) - f(x)| = q,$$

$$q = \min_{d_j} \max_{x \in G} \left| \sum_{j=0}^n a_j \psi_j(x) - f(x) \right| = \min_{d_j} \left\| \sum_{j=0}^n a_j \psi_j(x) - f(x) \right\|,$$

and the secondary conditions:

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Some generalizations of the ...

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$$\omega_i[F] = \sum_{j=0}^n \alpha_j^{(i)} a_j = \alpha_i \quad (i = 1, \dots, p).$$

The author assumes that the linearly independent functions $\varphi_j(x)$ form a Chebyshev T-system over a bicomact Hausdorff space G . For this purpose it is necessary and sufficient that the determinant

$$\begin{vmatrix} \varphi_0(x_1) & \dots & \varphi_0(x_{n+1}) \\ \dots & \dots & \dots \\ \varphi_n(x_1) & \dots & \varphi_n(x_{n+1}) \end{vmatrix}$$

vanishes for none of the point systems x_1, \dots, x_{n+1} that contains no zero of all φ . The author derives a series of theorems concerning the matrix,

$$\begin{vmatrix} K_1^{(1)} & \dots & K_{n+1}^{(1)} \\ \dots & \dots & \dots \\ K_1^{(p)} & \dots & K_{n+1}^{(p)} \end{vmatrix}$$

Card 2/3

KOROMYSLICHENKO, V.D. (Kiyev)

Some generalizations of V.A. Markov's problem and his fundamental
theorem corresponding to the Chebyshev - Markov criterion. Part 2.
Ukr.mat.zhur. 14 no.2:145-159 '62. (MIRA 15:11)
(Polynomials)

KOROMYSLICHENKO, V.D. (Kiyev)

Direct and inverse problems of the algebraic minimax. Zhur. vych.
mat. i mat.fiz. 4 no.1:15-22 Ja-F '64. (MIRA 17:6)

KOROMYSLICHENKO, V.D. (Kiyev)

Chebyshev approximations and the problem of moments. Ukr. mat.
zhur. 16 no.1:105-110 '64. (MIRA 17:5)

KOROMYSLECHENKO, V.D.

Inversion of V.A. Markov's problem for generalized polynomial
of the oscillation type. Vop. mat. fiz. i teor. funk. no.1:
72-80 '64. (MIRA 18:2)

KOROMYSLICHENKO, V.D.

Chebyshev approximation for certain operators and the
finding of an exact solution in special cases. Dop. AN
URS SR no.11:1418-1423 '65. (MIRA 18:12)

1. Institut matematiki AN UkrSSR.

KOROMYSLICHENKO, V.D.

Direct and inverse V.A.Markov problem in the complex region.
Dokl. AN SSSR 166 no.1:26-29 Ja '66.

(MIRA 19:1)

1. Institut matematiki AN UkrSSR. Submitted May 4, 1965.

KOROMYSLO, D. (Kiyev)

Winding of torroidal coils. Radio no.3:23 Mr '62. (MIRA 15:3)
(Electric coils)

KOROMYSLOV, B. (d. Zhestovo, Pushkinskogo rayona, Moskovskoy obl.)

Master of the Zhestovo lacquering. Prom.koop. 13 no.1:33 Ja '59.

(MIRA 12:2)

(Zhestovo—Lacquer and alcquering)

RAZINA, T., nauchnyy sotrudnik; KOROMYSLOV, B., nauchnyy sotrudnik;
KAGANOV, L.

In the land of Vladimir. Prom. koop. 13 no.7:14-18 JI '59.
(MIRA 12:10)

1.Nauchno-issledovatel'skiy institut khudozhestvennoy promyshlennosti
(for Razina, Koromyslov). 2.Spetsial'nyy korrespondent zhurnala
"Promyslovaya kooperatsiya" (for Kaganov).
(Vladimir Province--Art industries)

KOROMYSLOV, B., khudozhnik

Fadeproof paints. Mest.prom. i khud.promys. 1 no.1:4-6 0 '60.

(MIRA 14:3)

(Lacquer and lacquering, Russian) (Art industries—Exhibitions)

KOROMYSLOV, B.

Glorious anniversary. Prom.koop. 14 no.9:29 S '60. (MIRA 13:9)
(Pedoskino--Miniature painting)

KOROMYSLOV, S. I.

✓ Determination of morphine in paregoric tablets. S. I. Koromyslov (Moscow Pharm. Inst.). *Aptekhoz Delo* No. 6: 36-7 (1965).—Five tablets are crushed, wetted with 3 cc. H_2O and 1 cc. of 10% NH_4 , 30 cc. of $CHCl_3$ - $EtOH$ (9:1) is added, and the mixt. shaken for 15 min. Five g. of anhyd. Na_2SO_4 is added, and the $CHCl_3$ layer is filtered through anhyd. Na_2SO_4 ; the extrn. is repeated twice with 10 cc. each time. The combined liquids are evapd. to dryness, the residue is dissolved in 2.25 cc. H_2O with slight warming, 1 cc. is transferred to a test tube contg. 9 cc. of a reagent, prepd. by mixing 2 cc. of a 0.3% soln. of $FeCl_3$ (contg. 4 cc. of 25% HCl per 100 cc.) with 100 cc. H_2O and 2 cc. of a 0.2% soln. of $K_3Fe(CN)_6$. To another test tube is added 1 cc. of a 1% soln. of morphine- HCl and 9 cc. of the above reagent. The solns. are compared colorimetrically. The method is based upon the property of morphine to reduce $K_3Fe(CN)_6$ to $K_4Fe(CN)_6$, which forms Prussian Blue with $FeCl_3$.
A. S. Mittleman

LYUKSHENKOV, A.G.; KOROMYSLOV, S.I.

Syrups. Changes proposed for the ninth edition of the state
pharmacopeia of the U.S.S.R. Apt. delo 9 no. 4:41-46 J1-Ag
'60. (MIRA 13:8)

(SIRUPS)

KOROMYSLOV, S.I.

"Textbook on the Latin language" by M.G. Nordkin, L.V. Tokmakova.
Reviewed by S.I. Koromyslov. Apt. delo 9 no. 4:85-86 J1-Ag
'60. (MIRA 13:8)

(LATIN LANGUAGE—TEXTBOOKS)

ARTEM'YEV, A.I.; ALYUSHIN, M.T.; RATKEVICH, G.I.; KOROMYSLOV, S.I.

Mechanical supplying of distilled water to work locations. Apt.
delo 10 no. 2:42-45 Mr-Ap '61. (MIRA 14:4)

1. Laboratoriya tekhnologii lekarstvennykh form i galenovykh
preparatov.

(WATER, DISTILLED)

KOROMYSLOV, S.I.

Results of the work of the pharmacy network in 1961 and its tasks for 1962. Apt.delo 12 no.3:7-13 My-Je '62. (MIRA 16:1)

1. Glavnoye upravleniye mezhrespublikanskogo meditsinskogo snabzheniya i sbyta Ministerstva zdravookhraneniya SSSR.
(PHARMACY)

L 12021-66 ARG/EWT(d)/FBD/FSS-2/FBO/EWT(m)/FA/EMP(c)/FA(b)/EWP(j)/T/EWP(h)/FSS(k)/
 ACC NR: AF6001172 SOURCE CODE: UR/0256/65/000/007/0021/0023

EWA(h)/FBA/ETC(n) WW/DJ/RM
 AUTHOR: Koromyslov, V. N. (Engineer, Major)

ORG: None

TITLE: Mastery plus initiative /Rocket defense in the arctic/

SOURCE: Vestnik protivovozdushnoy oborony, no. 7, 1965, 21-23

TOPIC TAGS: rocket, ground rocket launcher, air defense missile, missile launcher, missile site, guided missile personnel, military installation

ABSTRACT: The author discusses the difficulties arising in the arctic regions in keeping rockets in a state of combat readiness. At the rocket sites the outside air temperature averages -30C, with drops to -50 and to -55C, for 100 days of the year; gusts up to 40-50 m/sec blow for the same number of days. The polar night lasts almost two months and is accompanied by a period of severe frosts and violent snowstorms, the snow reaching several meters deep. The author describes how, under these conditions, where metal does not hold up, radio parts fail, insulation and rubber cracks from the cold, and lubricants thicken, the equipment must operate without fail and the rockets must be in a state of readiness for immediate launch. The author's troops are able to keep the military equipment combat ready at all times because of their high technical and special training, the high degree of physical conditioning and endurance of the men, and because each unit has a thorough understanding of his debt to his country. The author devotes particular attention

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ACC NR: AP6001172

to the innovations that were introduced to keep equipment in operating condition. The weather conditions played havoc with cables, waveguides, lubricants, rectifiers, etc., but the soldier-innovators solved these problems as they arose, by better insulation of the cables, improved lubricants which would hold up at all low temperatures, by protecting the rectifiers against condensation, and other measures that permit the rockets to be operational at all times. Orig. art. has: 2 figures.

SUB CODE: 15, 19 / SUBM DATE: none

Card 2/2

COUNTRY : USSR
 TITLE : Cultivated Plants. Grains. Leguminous Grains.
 Tropical Cereals.
 JOURNAL : Izv. Akad. Nauk - Biologiya, No. 5, 1958, No. 10260
 AUTHOR : Koromyslova, M.A.
 INSTITUTION : Yaroslavl State Pedagogical Inst.
 SUBJECT : The Effect of Intensive Light on the Formation
 of Corn Tassels.
 DATE ISSUED : Sb. stud. nauchn. rabot, Yaroslavlsk. gos. ped.
 in-t, 1958, vyp. 1, 43-56
 ABSTRACT : No abstract

CARD : 1/1

SOLECHNIK, N.Ya.; NATKINA, L.N.; KOROMYSLOVA, T.S.; LIKHACHEVA, L.I.

Investigating chemical processes for obtaining lignin plastics
 binders. Nauch. trudy LTA no.98:61-68 '62. (MIRA 15:12)
 (Hardboard)
 (Wood, Chemistry)

SOLECHNIK, N.Ya.; NATKINA, L.N.; KOROMYSLOVA, T.S.; LIKHACHEVA, L.I.

Obtaining compressed, laminated wood without binders. Der. prom.
12 no.3:9-11 Mr '63. (MIRA 16:5)

1. Lesotekhnicheskaya akademiya im. S.M.Kirova.
(Wood, Compressed)

KOROMZAY, F.

TECHNOLOGY

periodicals: PRUMYSL POTRAVIN Vol. 9, no. 10, Oct. 1958

MINARIKOVA, L.; KOROMZAY, F. Possibilities of applying Fischer's method of determining water in some food products. p. 538.

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

KOROMZAY, Tibor, inz.

Putting the WUZ hardfacing electrodes into practice. Zvaranie
12 no.4:99-103 Ap 1963.

1. Vyskumny ustav zvaracsky, Bratislava.

KOTIRLO, V.K. [Kotyrlo, V.K.]

Peculiarities in the perception of the dimensions of objects
by preschool children. Nauk.sop.Nauk.-dosl.inst.psykol.
10:3-33 '59. (MIRA 13:5)

(Perception)

KOTIHLLO, V.K. [Kotyrla, V.K.]

Role of practical action, image, and word in the perception of the
size of objects by preschool children. Nauk. zap. Nauk.-dosl. inst.
psykhol. 11:123-126 '59. (MIRA 13:11)

1. Institut psikhologii, Kiyev.
(Perception)

KORON, A.G., inzh.

Over-all mechanization of a division producing metal electrodes.
Stroi. i dor. mash. 6 no.5:37-38 My '61. (MIRA 14:6)
(Electrodes)
(Voronezh--Building machinery industry--Technological innovations)

KORON, A.G., inzh.; ZAYTSEV, Yu.N., inzh.

Conference of welders in Voronezh. Svar.proizv. no.4:43-44 Ap '62
(MIRA 15:3)

(Welding--Congresses)

KORON, A.G., inzh.; ZAYTSEV, Yu.N., kand.tekhn.nauk

Welder's conference in Voronezh. Svar.proizv. no.4:44 Ap '64.
(MIRA 18:4)

BEKENY, Gyorgy, dr.; KORONA, Arpad, dr.

Data on neurological complications in spinal anesthesia. Ideg.szemle
15 no.1:1-9 Ja '62.

1. A Budapesti Orvostudományi Egyetem Neurológiai klinikájának (ig.:
Horanyi Bela dr., egyetemi tanár) közleménye.

(ANESTHESIA SPINAL compl)

KORONA, Arpad, dr.

The effect of the parietal lobe on genital development. Ideggyogy.
szemle 15 no.8:241-244 Ag '62.

1. A Budapesti Orvostudományi Egyetem Neurológiai Klinikájának közleménye
(igazgató: Horányi Béla dr. egyetemi tanár).

(PARIETAL LOBE) (GENITALIA, MALE)
(GLIOBLASTOME MULTIFORME) (BRAIN NEOPLASMS)

KORONA, A. B.

Cand. Tech. Sci.

Dissertation: "Investigation of the Effect of Surface Fineness on the Strength of a Pressure Fit." Moscow Order of the Labor Red Banner Higher Technical School imeni N. E. Bauman, 26 May 47.

SO: Vechernyaya Moskva, May, 1947 (Project #17836)

1. KEROVA, A. B.
2. USSR (600)
7. Design of Couplings With Clearances With Consideration of the Method of Machining Surfaces and Their Purity, Machine Tools and Instruments No. 9, Sep 1950
9. Compilation of Information of the USSR Machine and Machine Tools Industry Contained in Soviet Publications. ATIC. Restricted.

KORONA, A.B., kandidat tekhnicheskikh nauk.

Interrelation of surface smoothness, accuracy and fitting. Vest.mash. 33
no.9:34-42 S '53. (MLBA 6:10)

(Surfaces (Technology))

KORONA, Aleksandr Borisovich

**KORONA, Aleksandr Borisovich, kandidat tekhnicheskikh nauk; LYUBINSKAYA,
A.G., redaktor; KOMILINA, L.N., tekhnicheskii redaktor**

**[Equipment for finishing metals] Prispособleniia dlia mekhanicheskoi
obrabotki metallov. Moskva, Vses.kooperativnoe izd-vo, 1955. 338 p.
(Metals--Finishing) (MLRA 9:1)**

KOROMA, A. B.

N/5
668.5
.45

MOSCOW. VSESOUZNYI NAUCHNO-ISSLEDOVATEL'SKIY I KONSTRUKTORSKIY INSTITUT
KHIMICHESKOGO MASHINOSTROYENIYA. PROGRESSIVNAYA TEKHNOLOGIYA V KHIMICHESKOM
MASHINOSTROYENII; PERABOTKA METALLOV DAVLENIYEM, REZANIYEM I SVERKA (PROGRESS—
IVE TECHNIQUES IN CHEMICAL MACHINERY CONSTRUCTION) POD RED. MOSKVA,
MASHGIZ, 1956. 82, (1) p. ILLUS., DIAGRS., GRAPHS, TABLES. (ITS v. 19)
"LITERATURA": p. (83)

KORONA, A.B., kandidat tekhnicheskikh nauk.

Manufacturing threaded pipe connections for high-pressure applications.
(MIRA 10:3)

Sber.st. NIKHIMASH no. 19:68-83 '56.
(Pipe fitting)

KORONA, J.

Technical innovations in the world. Przegl papier 21 no.4:122
Ap '65.

PRUSZYNSKI, Jan; KORONA, Jerzy

Stenosing inflammation of Vater's ampulla as one of the causes of failure following cholecystectomy. Pol. przezl. chir. 35 no.7/8:803-805 '63.

1. Z I Kliniki Chirurgicznej WAM Kierownik: doc. dr J. Pruszyński.

(CHOLECYSTECTOMY) (VATER'S AMPULLA)
(POSTOPERATIVE COMPLICATIONS)
(INFLAMMATION)

KORONA, V., inshener.

We are expecting tangible assistance from science. Mast. ugl. 5 no. 12:20
D '56. (MLRA 10:2)

1. Nachal'nik sushil'no-promovogo tsekha Semenovsko-Golovkovskoy
briketnoy fabriki.
(Research, Industrial)

PRUSZYNSKI, Jan; WLADZINSKI, Jerzy; KORONA, Jerzy

Indications for section of the sphincter of Oddi. Pol. przegl.
chir. 35 no.7/8:800-802 '63.

1. Z I Kliniki Chirurgicznej WAM Kierownik: doc. dr
J. Pruszyński.

(VATER'S AMPULLA) (SURGERY, OPERATIVE)
(CHOLELITHIASIS) (PANCREATITIS)
(CHOLANGITIS)

KALITA, P.G., gornyy insh.; KARANDIN, I.G., gornyy insh.; KORONA, V.P.

Briquetting of brown coal with admixture of anthracite fines;
Ugol' Ukr. 3 no.9:40 S '59. (MIRA 13:2)

1. Trest Vatitunngol' (for Kalita, Karandin). 2. Yurkovskaya
briketnaya fabrika (for Karandin).
(Briquets (Fuel))

KORONACKI, Wacław

Modernization of the rolling stock on the railways of the U.S.S.R.
Przegl kolej mechan 11 no.11:259-262 II '64.

1. Central Institute for Research and Development of Railway
Techniques, Warsaw.

KORONATOV, G.A., inzhener.

New acyclic electric machines. Elektrichestvo no.4:91 Ap '57.
(MLRA 10:5)
(Great Britain—Electric machines)

KORONATOVA, T. D.

AUTHORS: Gutman, L. N. and Koronatova, T. D.

49-10-4/10

TITLE: On the theory of slope winds. (K teorii vetra sklonov).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1957, No.10, pp.1238-1248 (USSR)

ABSTRACT: The author defines as slope winds, winds in mountains which occur owing to thermal conditions above an inclined ground surface which is uniformly heated or cooled. The theoretical model of a steady state slope wind was first expounded by Prandtl (Ref.1) on the assumption that the mountain slope represents an infinite thermally uniform surface and that the coefficients of turbulent exchange are constant values. In earlier work one of the authors (Ref.4) generalised the problem to adapt it to a more real relief shape, considering the slope winds in a shallow valley or above a shallow mountain ridge; such a formulation leads to non-linear equations and a method was proposed to simplify these equations, indicating the possibility of finding an accurate solution for the case of a relief which is symmetrical relative to the centre of the bottom of the valley (or the top of the mountain ridge) without obtaining concrete results. In this paper the solution of this problem is expounded in greater detail,

Card 1/2

On the theory of slope winds
APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824820017-9

disregarding the humidity field; certain physical conclusions are drawn from the results and concrete calculation examples are included, stating that the conclusions are in agreement with experimental data published by Vulfson, N. I. (Ref.8). There are 2 figures, 1 table and 8 references, 7 of which are Slavic.

SUBMITTED: February 27, 1957.

ASSOCIATION: Ac.Sc., U.S.S.R. Institute of Physics of the Atmosphere. (Akademiya Nauk SSSR Institut Fiziki Atmosfery).

AVAILABLE: Library of Congress

Card 2/2

Computation (Cont:)

SOV/2545

was obtained by the method of successive approximations. The work was carried out by the staff members of the Laboratory of Atmospheric Optics within the Institute of Physics of the Atmosphere, Academy of Sciences, USSR. No personalities are mentioned. There are 23 references: 14 Soviet, 4 English, 4 German, and 1 French.

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Computation (Cont.)

SOV/2545

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Card 3/4

ACCESSION NR: AP4038992

S/0050/64/000/005/0039/0044

AUTHORS: Dikiy, L. A. (Candidate of physico-mathematical sciences); Koronatova, T. D.

TITLE: Stability of solutions of equations for displacement of a vortex relative to disturbance of the initial and boundary conditions

SOURCE: Meteorologiya i gidrologiya, no. 5, 1964, 39-44

TOPIC TAGS: weather forecasting, boundary condition, pressure field, error propagation, numerical method

ABSTRACT: A significant source of error when predicting the pressure field by numerical methods is the use of fictive boundary conditions. These errors increase in proportion to the length of forecasting period. The authors seek to show on the basis of a simplified model how rapidly such errors spread from the boundary into the region of prediction, and they also attempt to indicate the length of forecast reasonably possible from the boundary conditions. The rate at which error spreads from the boundary has been computed by using fictive boundary values, on the one hand, and by using actually known boundary conditions on the other. It is found that for the 24-hour period of forecasting errors do not appear to move far inward from the boundary, but for the 48-hour period the difference between the two methods

Card 1/2

KORONCZAY, Bela

The Technical Library and innovation movement in the Danubian
Iron Works. Ujit lap 12 no.22:12 25 N '60.

1. Dunai Vasmu muszaki konyvtarvezetoje.

L 41777-66 EWP(j)/T IJP(c) WW/RM

ACC NR: AP6031685

SOURCE CODE: HU/0005/65/071/010/0447/0450

AUTHOR: Hardy, Gyula; Janosne, Boros-Gyevi; Koronczay, Laszlo

ORG: Research Institute for the Plastics Industry, Budapest (Muanyagipari Kutato Intezet)

TITLE: Investigations in the field of solid-state radiation polymerization Part 10: Copolymerization of vinyl chloride-acetate and acrylic acid

SOURCE: Magyar kemiai folyoirat, v. 71, no. 10, 1965, 447-450

TOPIC TAGS: radiation polymerization, copolymerization, vinyl chloride, acrylic acid

ABSTRACT: The copolymerization of vinyl chloride-acetate and acrylic acid is characterized in the liquid state by the copolymerization constants. The phase diagram of the solid system of this pair of monomers has an eutectic point at the composition corresponding to a 62 mole-% vinyl chloride-acetate content. The copolymerization rate in the solid state is at a maximum at the eutectic point and the copolymer formed has the composition of the eutectic mixture. In the supercooled/liquid state the rules governing the copolymerization are similar; however, the rate of the process is ten times as high as in the solid state. Orig. art. has: 10 figures. [JPRS: 33,540]

SUB CODE: 07 / SUBM DATE: 01Apr65 / ORIG REF: 003 / OTH REF: 002

Card 1/1

KORONDAN, Iren (Mrs); SZARVAS, Pal, prof., dr.

Contribution to the alleged complex forming property of
parafuchsinhexa~~carboxic~~ acid. Acta chimica Hung 41 no.1/2:
43-58 '64.

1. Institut fur Anorganische und Analytische Chemie der
Lajos Kossuth Universitat, Debrecen.

L 63747-65 EMP(j)/T RM

ACCESSION NR: AT5021740

HU/2502/64/041/01-/0043/0058

AUTHOR: Korondan, Iren(Debrecen); Szarvas, Pal(Sarvash, P.)(Doctor, Professor)
(Debrecen)

TITLE: Presumed complex-forming ability of parafuchsine hexaacetic acid

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 41, no. 1-2, 1964,
43-58

TOPIC TAGS: acetic acid, polarography, photometry

ABSTRACT: [German article] An attempt was made to detect the presence of parafuchsine hexaacetic acid - metal complexes by means of polarographic, conductometric, photometric, and pH-metric techniques. No evidence was found to prove the existence of Cu^{2+} , Zn^{2+} , Co^{2+} , Fe^{2+} , Tl^+ , or Ti^{4+} complexes. It was not possible to explain the reason for the absence of complex formation which was expected on the basis of the compound's structure and which was contrary to the assumption reported by LASTOVSKIJ, R. P., WAKSTEIN, Yu. J., DJOBLOVA, I. M., and TESSINA, B. Ya., (Zh. Anal. Khim., Vol 11, 1956, p 405).

Orig. art. has: 4 tables, 11 graphs.
Card 1/2

L 63747-65

ACCESSION NR: AT5021740

ASSOCIATION: Institut für Anorganische und Analytische Chemie der L. Kossuth
Universität, Debrecen (Institute for Inorganic and Analytical Chemistry at Lajos
Kossuth Scientific University)

SUBMITTED: 05May63

ENCL: 00

SUB CODE: GC, OP

NR REF SOV: 000

OTHER: 002

JPRS

Card 2/2

KORONDI, Geza, okleveles mernok, tervezo

City mass transportation in Switzerland. Kozl tud sz 15 no.2:83-
85 P '65.

1. Capital Civil Engineering Designing Enterprise, Budapest.

KORONELLI, T.V.; MEL'NIKOVA, S.G.; SAGITULLIN, R.G.

Effect of some additives on the metabolism of *Claviceps purpurea*
culture (strain PRL-1980). Vest. Mosk. un. Ser. 6: Biol., pochv.,
20 no.6:23-28 N-D '65. (MIRA 19:1)

1. Kafedra biologii pochv i Kafedra organicheskoy khimii Moskovskogo
gosudarstvennogo universiteta.

KOST, A.N.; KORONELLI, T.V.; SAGITULLIN, R.S.

Chromatography of indole derivatives in a thin layer of
aluminum oxide and on paper. Zhur. anal. khim. 19 no. 1:
125-130 '64. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

SAGITULIN, R.S.; KORCHELI, T.V.

Synthesis of dl-abrine and 5-methoxyabrine. Vest. Mosk. un. Ser.
2 Khim. 19 no.2:68-71 Mr-Apr'64 (MIRA 17:6)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.

(A)

L 00042-66 EWA(j)/EWA(b)-2/EWT(1)/EWT(m) RM/BN/RO

ACCESSION NR: AP5023714

UR/0075/65/020/008/0845/0849

543.80

AUTHOR: Kost, A. N.; Koronelli, T. V.; Lideman, R. R.; Sagitullin, R. S.

TITLE: Fluorescence method for separate determination of ergoalkaloids and tryptophan

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 8, 1965, 845-849

TOPIC TAGS: fluorescence spectrum, alkaloid, tryptophan, spectrophotometric analysis

ABSTRACT: The ability of ergoalkaloids and tryptophan to fluoresce in ultraviolet light was utilized in a method for their separation and determination, as these compounds were found to have widely separated peaks in their absorption and fluorescence spectra. 5-Methoxy-N-methyltryptophan and 5-methoxy-2-indolecarboxylic acid present together in approximately equal amounts (with respective peaks at 338 and 420 mμ) were thus separated. Ergoalkaloids could not be determined in the presence of dihydroergotoxin, whose spectra are too similar to theirs. Although the spectra of ergonovine and lysergic acid are also quite similar, these two compounds

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00042-66

ACCESSION NR: AP5023714

7
can be determined when present together if different wavelengths are employed. Mix-
tures of lysergic acid and tryptophan lend themselves particularly well to the
fluorescence analysis, even when one or the other is present in considerable excess.
The proposed method was then successfully applied to the analysis of alkaloidlike
metabolic products of the mold Cl. purpurea strain PRL-1980. Orig. art. has: 8
figures and 3 tables.

44,55
ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow
State University); Institut psikhiatrii AMN SSSR (Institute of Psychiatry, AMN
SSSR)

SUBMITTED: 08Jul64

44,55
ENCL: 00

SUB CODE: GC, OP

NO REF SOV: 004

OTHER: 009

KC
Card 2/2

KORONKAI, Bartalan, dr.; ORZÓY, Robert, dr.

Treatment of psychoses with histamine. Ideggyogy. szemle 14 no.6:
174-179 Je '61.

1. A Miskolci Megyei Kórház (igazgató: Dr. Kende István) ideg-
elmeosztályának (főorvos: Dr. Bagothay László) közleménye.

(PSYCHOSES ther) (HISTAMINE ther)

FODOR, Sandor, dr.; KORONKAI, Bertalan, dr.; LINCZENYI, Adorjan, dr.
VIKAR, Gyorgy, dr.

Cases of organic diseases simulating functional disorders. Orv.
hetil. 102 no.9:414-417 26 F'61.
(NEUROSES diag)
(CORONARY DISEASE diag)

KORONKAI, Bertalan, dr.

Experimental hypnosis in periodic myoplegia. Ideggyogy.
Szemle. 17 no.5:139-150 My '64.

1. Az Országos Ideg- és Elmegyógyintézet (Ig. főorvos: Maria
Bela, dr.) Volgy utcai idegosztályának (Oszt. vez. főorvos:
Pertorini Rezso, dr.) közleménye.

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824820017-9

Psychiatry

HUNGARY

HORVATH, Szabolcs, Dr., MESZAROS, Maria, Dr., HORANSZKY, Kornelia, Dr.,
KORONKAI, Bertalan, Dr., and PERTORINI, Rezso, Dr., Neurological
Department for Male Functions (Director: PERTORINI, Rezso, Dr.) at the
National Institute for Neurology and Psychiatry (Director: MARIA, Bela,
Dr.) (Országos Ideg- és Elmegyógyintézet Ferfi Funkcionális Idegosztálya)
[location not given].

"Analysis of the Dynamics of Group Psychotherapy Sessions"

Budapest, Magyar Pszichológiai Szemle, Vol 23, No 1-2, 1966, pp 146-157.

Abstract: The group psychotherapy sessions held at the authors' Institute
since 1963 were analyzed and the data were presented in tables. The dis-
tribution of the approximately 100 patients involved according to symptoms
was interpreted in terms of their behavior during the sessions. The various
aspects of performance during the sessions were analyzed statistically.
The principal functional groupings involved vivacity, group cohesion,
influence of the doctor, and number of participants. 14 references, in-
cluding 5 Hungarian, 3 German, and 6 Western.

KORONKEVICH, A.I. (Lvov)

Some remarks about the evaluation of accuracy of linear extrapolation and filtration (with summary in English). Teor. veroiat.i ee prim. 2 no.1:116-121 '57. (MLRA 10:7)
(Probabilities) (Approximate computation)

KORONKEVICH, A.I.

The ergodic theorem for nonstationary random functions [with summaries in Russian and English]. Dop AN URSR no.3:231-233 '57. (MLRA 10:9)
1. L'viv's'kiy derzhavniy universitet. Predstavleno akademikom
Akademii nauk USSR B.V.Osedenko.
(Functions)

KORONKEVICH, P.I. [Koronkevych, P.I.]

Linear dynamic systems under the action of random forces. Nauk.
zap. L'viv. un. 44 no.8:175-183 '57. (MIRA 11:6)
(Differential equations, Linear) (Probabilities)

KORONKEVICH, A.I.

124-58-6-6315

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6,
p 6 (USSR)

AUTHOR: Koronkevich, O.I.

TITLE: Resonance in Linear Dynamic Systems Under the Action of
Random Forces (Rezonans v lineynykh sistemakh pri deystvii
sluchaynykh sil) Rezonans liniynykh dynamichnykh systemakh
pry diyi vypadkovykh syl

PERIODICAL: Nauk. zap. L'vivs'k. un-t, 1957, Vol 44, pp 184-194

ABSTRACTS: Systems of first-order differential equations containing
constant coefficients and free terms representing random forces
are examined. A case is investigated in which, amongst the
roots of the characteristic equation, there are imaginary ones
or ones with zero value.

M. Ye. Temchenko

Card 1/1 1. Resonance--Mathematical analysis

KORONKEVICH, A.I. [Koronkevych, O.I.]

Remarks on the continuity problem of random functions. Nauk zap.
L'viv. un. 44 no.8:195-199 '57. (MIRA 11:6)
(Probabilities)

AUTHOR: ~~Korenkevich, A.I.~~

21-58-7-2/27

TITLE: Structure of a Particular Solution of a System of Linear Differential Equations with Fortuitous Free Terms Under Resonance Conditions (Struktura chastnogo resheniya lineynoy sistemy differentsial'nykh uravneniy so sluchaynymi svobodnymi chlenami v usloviyakh rezonansa)

PERIODICAL: Dopovidi Akademii nauk Ukrain's'koi RSR, 1958, Nr 7, pp 694-697 (USSR)

ABSTRACT: A system of linear differential equations with constant coefficients:

$$\frac{dY}{dt} = AY + \xi(t) \quad (1)$$

is considered, where: Y is the column of solutions; A is a square matrix of coefficients of n-order; $\xi(t)$ is the column of free terms $\xi_1(t), \dots, \xi_n(t)$, which is a multi-dimensional fortuitous stationary (in the wide sense used by O.Ya. Khinchin, (Ref. 1) function. It is assumed that $M\xi(t) = 0$. The system (1) is a resonance one, i.e., the characteristic equation $|A - \rho E| = 0$ has zero or

Card 1/3

21-58-7-2/27

Structure of a Particular Solution of a System of Linear Differential Equations with Fortuitous Free Terms Under Resonance Conditions

imaginary roots. The author considers a particular solution of the system in the form:

$$Y(t) = \int_{-\infty}^t e^{A(t-\tau)} \xi(\tau) d\tau$$

where the lower limit of integration is taken $+\infty$, $-\infty$ or 0 dependent on the value of $\operatorname{Re}(\alpha)$. The author gives asymptotic formulas for the correlation matrix of this particular solution and for the dispersion of a fortuitous function with stationary derivatives of m-order. There are 2 Soviet references.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet (L'vov State University)

PRESENTED: By Member of the AS UkrSSR, B.V. Gnedenko

Card 2/3

Structure of a Particular Solution of a System of Linear Differential
Equations with Fortuitous Free Terms Under Resonance Conditions

21-58-7-2/27

SUBMITTED: February 1, 1958

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Differential equations 2. Mathematics

Card 3/3

AUTHOR: Koronkevich, A.I.

SOV-21-58-8-2/27

TITLE: Ergodic Properties of Random Functions in the Solution of a Linear Dynamic System (Ergodicheskiye svoystva sluchaynoy funktsii na vykhode lineynoy dinamicheskoy sistemy)

PERIODICAL: Dopovidi Akademii nauk Ukrain's'koi RSR, 1958, Nr 8, pp 810-812 (USSR)

ABSTRACT: The author considers the connection between the conditions which ensure the fulfilment of the ergodic theorem for a given multi-dimensional random function $\xi(t)$ and the conditions satisfying the ergodic theorem for a special solution of the system

$$\frac{dY}{dt} P(t)Y + \xi(t)$$

where Y is the column of unknown functions, $\xi(t)$ is the column of random functions continuous in the root-square-mean, and P(t) is the matrix of coefficients elements of which are continuous functions. The author presents five theorems pertaining to the problem under consideration. There are 6 Soviet references.

Card 1/2

SOV-21-58-8-2/27

Ergodic Properties of Random Functions in the Solution of a Linear Dynamic System

ASSOCIATION: L'vovskiy gosudarstvennyy universitet (L'vov State University)

PRESENTED: By Member of the AS UkrSSR, B.V. Gnedenko

SUBMITTED: February 1, 1958

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Functions--Theory

Card 2/2

S/140/61/000/002/003/009
C111/C222

AUTHOR: Koronkevich, A.I.
TITLE: The solution of systems of linear differential equations
with random free terms
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, no.2,
1961, 63-74
TEXT: The author considers linear systems

$$\frac{dY}{dt} = P(t)Y + \xi(t), \quad (1)$$

where $\xi(t)$ is a column of random functions $\xi_j(t)$, $j=1,2,\dots,n$, and $P(t)$ is an $n \times n$ matrix. The elements $P_{ij}(t)$ of $P(t)$ are continuous. The author gives conditions for the existence of general and determined solutions, respectively, (e.g. periodic or almost periodic). The connection of the solution $Y(t)$ of (1) and the ergodic theorem is considered. Ten theorems are partially proved and partially formulated. Definitions: The random function $\eta(t)$ is bounded in the mean up to the moments of the order $2k$ if $M\eta^{2k}(t)$ is uniformly bounded for every t .

Card 1/5

The solution of systems...

S/140/61/000/002/003/009
C111/C222

$-\infty < t < +\infty$.

Theorem 1: Given (1); let the elements of $P(t)$ be continuous and uniformly bounded on $-\infty < t < +\infty$. Let the corresponding homogeneous system be reducible to the system

$$\frac{dX}{dt} = BX \quad (3)$$

with constant coefficients. Let the matrix B have no characteristic numbers the real parts of which are equal to zero. Let the $\xi_j(t)$ be bounded in the mean ($k=1$). Then there exists a unique partial solution bounded in the mean ($k=1$), where the estimations

$$|My_1(t)| \leq Qm_1, \quad M|y_1(t)|^2 \leq Q^2 n^2 m_2 \quad (5)$$

are valid, where n is the order of the system

$$m_1 = \max |M \xi_j(t)|; \quad m_2 = \max M |\xi_j(t)|^2; \quad (6)$$

$$Q = p \frac{q}{q-1} \left\{ \frac{q(q^{n-1}-1)}{q-1} - n \right\};$$

p is a magnitude depending on the coefficients of the system,

Card 2/5

The solution of systems...

S/140/61/000/002/003/009
C111/C222

$q = \max \left\{ \frac{1}{\alpha}; 1 \right\}; \quad \alpha = \min |\operatorname{Re}(\lambda_j)|; \quad j=1, \dots, n;$
 λ_j are the characteristic numbers of an arbitrary matrix of the possible matrices B with constant coefficients.

$$k_{\xi\xi}(t,s) = \det B_{\xi\xi}(t,s) = \begin{vmatrix} M \xi_1(t) \overline{\xi_1(s)} & \dots & M \xi_1(t) \overline{\xi_n(s)} \\ \vdots & & \vdots \\ M \xi_n(t) \overline{\xi_1(s)} & \dots & M \xi_n(t) \overline{\xi_n(s)} \end{vmatrix} \quad (15)$$

is called the correlation determinant of (t) . The random functions $\xi_1(t), \dots, \xi_n(t)$ are called linearly independent in the mean if $k_{\xi\xi}(t,s) \neq 0$.

Theorem 2: If in (1) the components of $\xi(t)$ are linearly independent in the mean, and $Y(t)$ is an arbitrary partial solution of (1) then the random functions $Y(t)$ and $\xi(t)$ are linearly independent in the mean, and every partial solution $Y(t)$ consists of random functions $y_i(t)$,

$i=1, \dots, n$ which are linearly independent in the mean.

Theorem 3: The constancy (periodicity, resp.) of the coefficients of (1) and the stationarity (periodicity in the wider sense, resp.) of $\xi(t)$

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The solution of systems...

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C111/C222

are necessary for the existence of a partial stationary (periodical in the wider sense, resp.) solution $Y(t)$ of (1) which is stationarily (periodically, resp.) connected with $\xi(t)$ (where $\xi_1(t)$ are linearly independent in the mean).

(A random function $\eta(t)$ is called periodical (almost periodical in the wider sense, resp.) if its mean value $M_\eta(t)$ is periodical (almost periodical, resp.) and $M_\eta(t) \eta(t+h)$ is periodical (almost periodical, resp.) in t for all fixed h .)

Theorem 5: Let $\xi_j(t)$, $j=1, \dots, n$, be linearly independent in the mean

and bounded in the mean. In order that (1) has a partial solution bounded in the mean with a derivative bounded in the mean it is necessary that the coefficients of the system are uniformly bounded on the whole t -axis.

Theorem 8: Given the inhomogeneous system (1) which satisfies the conditions of theorem 1. Let the free terms $\xi_j(t)$ form a multi-

dimensional random magnitude for which

$$M \xi(t) = 0, \quad M \xi(t+h)(\xi(t))^* \xrightarrow{h \rightarrow \infty} 0$$

uniformly with respect to t . Then the ergodic theorem is satisfied for

Card 4/5

The solution of systems...

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C111/G222

the particular solution bounded in the mean.

Theorem 9: Given the linear system

$$\frac{dY}{dt} = AY + \xi(t) \quad (27)$$

with constant coefficients. Let the characteristic equation have no roots with a vanishing real part; let $\xi(t)$ be a column of random functions, where $M \xi_j(t) = 0$; $M \xi_j^2(t)$ is bounded and

$$\frac{1}{T^2} \int_0^T \int_0^T M \xi(t_1) (\xi(t_2))^H dt_1 dt_2 \xrightarrow{T \rightarrow \infty} 0.$$

Then the random bounded particular solution satisfies the same conditions so that the ergodic theorem is valid for it. The author mentions A.Ya.Khinchin. There are 12 Soviet-bloc references.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. J. Franko (L'vov State University im. J. Franko)

SUBMITTED: January 20, 1959

Card 5/5

KORONKEVICH, A.I.

Some remarks concerning solutions to inhomogeneous systems of
linear differential equations. Prikl.metod.resch.diff.urav.
no.2:62-69 '54. (MIRA 18:4)

KORONKEVICH, G.M.

Raising chufa in Kuybyshev Province. Biul.Glav.bot.sada no.26:91-93
'56. (MLRA 10:2)

1. Kuybyshevskiy inzhenerno-melliorativnyy institut.
(Kinol'--Chufa)

KORONKEVICH, N.I.

Dependence of the harvest in the arid zone on the available soil
moisture. Izv. AN SSSR. Ser. geog. no.3:48-52 My-Je '65.

(MIRA 18:6)

1. Institut geografii AN SSSR.

KORZHUYEV, S.S.; VITVITSKIY, G.N.; YEGOROV, O.V.; NAUMOV, S.N.;
 ZOL'NIKOV, V.G.; KARAVAYEV, M.N.; KACHURIN, S.P.;
 KOSMACHEV, K.P.; Prinsipali uchastkiye: KORONKEVICH, N.I.;
 D'YAKONOV, F.V.; GERASIMOV, I.P., akademik, red.;
 PREOBRAZHESNKIY, V.S., red.; RIKHTER, G.D., red.; ABRAMOV, L.S.
 red.; ARMAND, D.L., red.; GELLER, S.Yu., red.; ZONN, S.V., red.;
 DZERDZEYEVSKIY, B.L., red.; KOMAR, I.V., red.; LAVRENKO, Ye.M.,
 red.; LEONT'YEV, N.F., red.; LETUNOV, P.A., red.; L'VOVICH,
 M.I., red.; MESHCHERYAKOV, Yu.A., red.; MINTS, A.A., red.;
 MURZAYEV, E.M., red.; NASIMOVICH, A.A., red.; POKSHISHEVSKIY,
 V.V., red. p POMUS, M.I., red.; ROZOV, N.N., red.; SOCHAVA, V.B.,
 red.; FORMOZOV, A.N., red.; YANSHIN, A.L., red.

[Yakutia] Iakutia. Moskva, Nauka, 1965. 464 p. (MIRA 18:8)

1. Akademiya nauk SSSR. Institut geografii. 2. Institut geogra-
 fii AN SSSR (for Korzhuyev, Vitvitskiy). 3. Yakutskiy filial
 Sibirskogo otdeleniya AN SSSR (for Yegorov). 4. Moskovskiy
 oblastnoy pedagogicheskiy institut im. K.K.Krupskoy (for Naumov).
5. Pochvennyy muzey AN SSSR (for Zol'nikov). 6. Moskovskiy go-
 sudarstvennyy universitet im. M.V.Lomonosova (for Karavayev).
7. Proizvodstvennyy nauchno-issledovatel'skiy institut stroitel'-
 stva Gosstroya SSSR (for Kachurin). 8. Institut geografii Sibiri
 i Dal'nego Vostoka Sibirskogo otdeleniya AN SSSR (for Kosmachev).

KORONKEVICH, V.P.; GOLUBKOVA, V.P.

New method for determining the nonparallelism of gauge blocks.
Izm.tekh. no.4:7-8 Ap '62. (MIRA 15:4)
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L'vov. Universitet

Materialy I Vsesoyuznogo soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies printed. (Series: Ita: Fizichnyy zbirnyk, vyp. 3/8/)

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KORONKEVICH, V.P.

Experimental determination of dispersion coefficients to be used
in formulas for normal air. Fiz. sbor. no.3:313-316 '57.
(MIRA 11:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im.
D.I. Mendeleeva.

(Air--Optical properties)

Interferometer for Relative Measurement of Gage Blocks of 100 mm to 1,000 mm in Length

AUTHORS: Kartashev, A.I., and Koronkevich, V.P.

115-5-3/44

TITLE: Interferometer for Relative Measurement of Gage Blocks of 100 mm to 1,000 mm in Length (Interferometr dlya otnositel'nykh izmereniy kontsevykh mer ot 100 do 1,000 mm)

PERIODICAL: "Izmeritel'naya Tekhnika", No 5, Sep-Oct 1957, pp 9-10 (USSR)

ABSTRACT: The article describes an interferometer developed at VNIIM, designed for measuring of gage blocks up to 1,000 mm in length by a method suggested by A.I. Kartashev. The method is said to permit highly precise direct comparative length measurements of two gage blocks and of the flatness and parallelism thereof without the use of contact instrument and the wringing of optical flats on their surface. The device has been verified on a large horizontal interferometer of VNIIM and it was stated that the difference between results of measurements did not exceed the maximum error permissible for 2nd accuracy class gage blocks according to standard "OCT-85000-39". It is hoped that further work with subject device will increase its accuracy thus it may be employed for measuring 1st class gage blocks, provided the reference gage blocks will be carefully studied and are of a higher precision than the 1st class of "OCT-85000-39" standard. Presently, the subject

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Interferometer for Relative Measurement of Gage Blocks of 100 mm to 1,000 mm in Length

device is employed for routine verification of 2nd accuracy class gage blocks.
The article contains 2 sketches and 1 photograph.

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SOV/115-59-8-2/33

An Interference Fringe Counter for Measuring Small Lengths

of the interference fringes. The light intensity changes at the interferometer outlet are picked up by a FEU-19M photomultiplier and are fed, converted to electrical signals, to a pulse shaping circuit. Here, the signals are converted to pulses of equal amplitude and shape. The pulse shaping circuit consists of an amplifier with direct coupling and a gain factor of 15-20, and one relaxation relay with one stable state. The upper passband limit is determined by the required counting rate which is about 1000 pulses per second for measuring purposes. At this rate, all pulses entering the input of the PS-64 device are registered by the electromechanical counter. The photomultiplier is fed with 1300 volts dc from a stabilized VS-9 rectifier. The voltage divider resistance was selected with an error rating not exceeding 1-2%. Combined with the interference fringe counter the interferometer PIU-1 may be used for checking micron dial gages, as shown in Figure 2. The checking procedure is described briefly. A

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length measured is calculated by the following formula:

$$L = N \frac{\lambda}{2}$$

where L is the length to be measured; N is the interference order (pulse number); and λ is the wavelength of the light (in this case $\lambda = 0.5461$ microns). Since the photoelectric circuits will register only full interference fringes, a lower number N will be obtained. In addition, the diaphragm aperture must be taken into consideration. For practical calculations the authors recommend A. N. Zakhar'yevskiy's [Ref 2] conception of the effective wavelength:

$$\lambda' = \frac{2}{1 + \sqrt{1 - A^2}} \lambda,$$

where A is the aperture of the illuminating pencil. Using the data of Ye. F. Dolinskiy the authors derive a formula for determining the error

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$$\Delta L \leq \left[(N+1) \frac{\lambda}{2} - L_0 \right] + L \frac{1 - \sqrt{1 - A^2}}{1 + \sqrt{1 - A^2}} + \frac{\lambda}{2}$$

The device designed by the authors was investigated experimentally and it was established that the measuring error was 0.15 to 0.25 microns. The theoretical mean square error should have a magnitude of 0.16 or 0.1 microns. The deviation of the experimental and the theoretical magnitudes are explained by mechanical inaccuracies of the dial gages used for checking. For recording fractional parts of interference fringes a trigger circuit was introduced, which reduced the mean square error to 0.13 microns. In their conclusions the authors point out that it is convenient to design an interferometer with a fringe counter using standardized components produced by the Soviet industry. Since the error of such an interferometer does not exceed 0.22 microns. It may be used for the majority of measurements in the machinebuilding industry, for checking micron dial

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gages and micrometer screws or for measuring heat expansion coefficients of bodies and similar operations. For more precise measurements, the accuracy of this device may be increased by applying devices which will fix fringe fractions with an accuracy of 0.5 fringes. There are 1 diagram, 1 photograph and 3 references, 1 of which is Soviet and 2 American.

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AUTHORS: Koronkevich, V. P., Skidan, V. V., Afanas'yeva, V. A.

TITLE: Contact Interferometer With Widened Measuring Range

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 5, pp. 2-5

TEXT: The authors describe their contact interferometer with widened measuring range (Ref. 5). This instrument serves for measuring small lengths (up to 1-2 mm), and was developed on the basis of the PIU (PIU) contact interferometer (Ref. 1). The new instrument is based on the combination of a two-beam interferometer with a multiple one. Fig. 2 shows the optical scheme and the beam path. The mode of operation of this instrument is described with the aid of this scheme. The widening of the measuring range was achieved by introduction of the etalon by Fabry-Pérot. Several such etalons (Fig. 4) were tested. The authors succeeded in widening the measuring range by the 32-fold. The Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev) used the new instrument for the determination of magnetostriction (Ref. 7). for

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